

## USDA energy program promotes 'cow power'

By Peter Thomas, Administrator  
Business and  
Cooperative Programs  
USDA Rural Development

**E**nergy and the issues surrounding it continue to be a high priority for the Bush Administration and USDA. The recent passage of the Energy Policy Act of 2005 emphasizes the importance the President and Congress place on the issue.

Rural Development has already played a significant role within USDA as a result of the 2002 Farm Bill and the establishment of the Renewable Energy Systems and Energy Efficiency Improvements Program (also known as the Section 9006 program). The funding from this program assists rural energy entrepreneurs in covering the costs of setting up and running these renewable energy systems and energy efficiency improvement projects.

To better illustrate the goals of the program, I'm going to focus on projects which received grants through the 9006 program. In addition to the grants, recent changes to the program will allow USDA Rural Development to offer guaranteed loans to qualifying projects.

In Lodi, Calif., Castelanelli Brothers Dairy received a \$166,000 Section 9006 grant in fiscal 2003. The funds helped the dairy farm establish a renewable energy system which uses an anaerobic digester to convert cow manure into

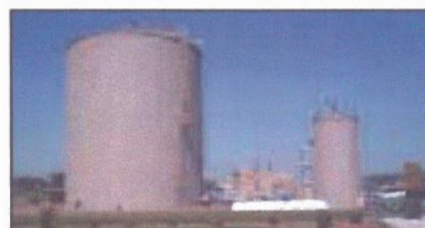


electricity. Anaerobic digestion is one of the few treatment options of manure that reduces the environmental impact of manure and can potentially produce savings and revenues.

A properly designed and operated digester can biologically stabilize organic wastes, reduce pathogens, reduce odor and improve fertilizer value, in addition to generating electricity from the biogas produced from digestion. It will produce 60,000 to 130,000 cubic feet gas daily, depending on the season.

The manure from the farm's 2,100 cows will produce 90 to 180 kilowatts. Another bonus: after the water flows out of the digester, it is stored and then recycled to flush manure from the barns, or used seasonally to fertilize field crops and grapes.

With the assistance of a Section 9006 grant, the Dairyland Power Cooperative in Elk Mound, Wis., installed its first anaerobic digester "cow-power" facility. The new facility is expected to generate 775 kilowatts of renewable energy, capable of powering 600 homes throughout the four-state area serviced. As is the case for all anaerobic digesters, cow manure from



*Gold Top Farms in Maine (left) is saving 90,000 kilowatt hours of electricity annually with high-volume, low-speed fans in its barn. Above, an anaerobic digester converts cow manure into methane gas, which in turn produces electricity.*

the dairy is collected and heated in the digester tank, a process that creates methane gas. This biogas is used to generate electricity.

Gold Top Farms, a family farm in Knox, Maine, was one of 167 recipients from 26 states to receive program funding last year. The farm was the first recipient from Maine. The family received a \$4,462 Section 9006 grant, which represented 25 percent of the project cost. The funds were used to install three high-volume, low-speed fans, saving 90,000 kilowatt hours annually. This resulted in the farm saving around \$8,000 a year over the cost of operating existing 24 fans. The new high-efficiency fans lead to energy efficiency, healthier livestock and ultimately higher productivity.

I commend these farmers and other project owners for taking advantage of the Section 9006 program. They are providing rural America with renewable energy and making their own operations more energy efficient. This has resulted in cleaner energy and saved the recipients money in the process.

These projects have also created new jobs while injecting new capital into rural communities. As America looks for alternative energy, USDA Rural Development will continue to assist rural communities in taking advantage of the new technologies and innovations for nontraditional sources of energy. ■